

Application No.: 10/638,173
Filing Date: August 6, 2003

REMARKS

Claims 60, 65-71, 76-83, 88-96, 101-117 and 126-141 are currently pending and presented for examination. Claims 1-59, 61-64, 72-75, 84-87, 97-100 and 118-125 are canceled. Applicants reserve the right to pursue the subject matter of any or all of these canceled claims in one or more continuing applications.

Claim 89 is currently amended. Claim 89 has been amended to correct an inadvertent deletion of the phrase “first bioactive agent” in the response filed December 17, 2008. Accordingly, no new matter is added by way of this amendment.

Claims 134-141 are new. Support for claims 134-141 can be found throughout the specification and claims as originally filed. For example, support for claims 134-141 can be found at page 15 lines 9-10. Accordingly, no new matter has been added to the instant application.

Rejection of claims 60, 66-71, 77-83, 89-96 103, 104, 106-117, 127, 129, 131 and 132 under 35 U.S.C. § 103(a)

The Examiner rejects claims 60, 66-71, 77-83, 89-96 103, 104, 106-117, 127, 129, 131 and 132 as allegedly obvious over U.S. Patent No. 6,327,410 (Walt et al.) in view of U.S. Patent No. 6,680,206 (McDevitt et al.) and/or U.S. Patent No. 7,041,510 (Seul et al.). In particular, the Examiner asserts that Walt et al. disclose an array and methods of making an array having spatially identifiable first and second assay locations on a surface with microspheres randomly placed in depressions within the assay location. Furthermore, the Examiner alleges that blank beads were known in the art and a skilled artisan would have added them to the arrays disclosed by Walt et al. Specifically, the Examiner asserts that both McDevitt et al. and Seul et al. disclose the use of blank bead in arrays. The Examiner than contends that a skilled artisan would have been motivated to combine, with a reasonable expectation of success, the disclosures of either McDevitt et al. or Seul et al. with that of Walt et al. in order to arrive at the subject matter of the above-rejected claims. In particular, the Examiner alleges that a skilled artisan would have derived the benefit of enhanced optical analysis allowing simultaneous evaluation of multiple chemically distinct analytes.

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Applicants submit that claims 60, 66-71, 77-83, 89-96 103, 104, 106-117, 127, 129, 131 and 132 are not obvious over Walt et al. in view of McDevitt et al. and/or Seul et al. because none of the above-recited combinations of references disclose all of the elements of any of the above-rejected, independent claims. Each of these independent claims recites that the blank microspheres are randomly distributed on the substrate. None of the above-recited references teach or suggest the random distribution of blank microspheres. Applicants also submit that the above-rejected claims are not obvious over the above-cited references because a skilled artisan would not be motivated to combine these references in order to obtain a random distribution of blank microspheres with any reasonable expectation of success.

Applicants would like to first point out that McDevitt et al. disclose the use of blank microspheres only as negative controls. It is clear from Example 2 and Figure 16 of the McDevitt et al. reference that the blank microspheres as well as each of the differently derivatized microspheres were positioned on the array such that their locations were known. Accordingly, McDevitt et al. do not teach or suggest randomly distributing blank microspheres on an array. Furthermore, a skilled artisan using a blank microsphere as a negative control would certainly need to know the location of the blank microsphere on the array in order for it to function as a negative control. As such, a skilled artisan would not be motivated to randomly distribute the blank microspheres disclosed by McDevitt et al. on an array disclosed by Walt et al. with any reasonable expectation of success.

Secondly, Applicants would like to point out that Seul et al. disclose the use of blank microspheres as a tool for increasing the spacing between chemically encoded beads distributed on an array. However, Seul et al. do not disclose or suggest that the blank beads be randomly distributed on the array. Rather, Seul et al. state that “[t]he array may be random with respect to chemical identity but is spatially ordered.” (see Seul et al. at column 25, lines 2-4). As such, with respect to the spatial aspects of the array, such as the inclusion of blank spacer microspheres, the array is ordered. Accordingly, Seul et al. do not teach or suggest randomly distributing blank microspheres on an array. Furthermore, a skilled artisan, using blank microspheres to increase spacing between chemically encoded microspheres would view ordered inclusion of blank microspheres as a necessary method for achieving regular spacing between all of the encoded microspheres. As such, a skilled artisan would not be motivated to randomly distribute the blank

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microspheres disclosed by Seul et al. on an array disclosed by Walt et al. with any reasonable expectation of success.

In addition to the foregoing, with respect to dependent claims 112-117, Applicants would like to point out a further basis for patentability. In particular, each of these claims recite that blank microspheres are located in the same depressions as microspheres comprising the bioactive agent. No combination of the above-cited references teach or suggest such an element. Furthermore, the Examiner has provided no allegations as to why a skilled artisan would randomly distribute blank microspheres on an array such that blank microspheres would be distributed in the same depression as a microsphere comprising a bioactive agent. Accordingly, Applicants submit that dependent claims 112-117 are nonobvious in view of the above-cited references.

In view of the foregoing remarks, Applicants respectfully request that the Examiner withdraw the rejection of dependent claims 60, 66-71, 77-83, 89-96 103, 104, 106-117, 127, 129, 131 and 132 under 35 U.S.C. § 103(a).

Rejection of claims 65, 67, 70, 76, 78, 81, 88, 90, 93, 101, 102, 105, 126, 128, 130 and 133 under 35 U.S.C. § 103(a)

The Examiner rejects claims 65, 67, 70, 76, 78, 81, 88, 90, 93, 101, 102, 105, 126, 128, 130 and 133 as allegedly obvious over Walt et al. in view of McDevitt et al. and/or Seul et al. further in view of U.S. Patent No. 6,232,066 (Felder et al.). The Examiner applies the combination of Walt et al., McDevitt et al. and Seul et al. essentially as described above and applies Felder et al. for the alleged disclosure of array locations separated by gaskets. In particular, the Examiner asserts that Walt et al. “desire[] segregation of microsphere subpopulations to provide spatial encoding” and that a skilled artisan would have been motivated to combine the above-cited disclosures, with a reasonable expectation of success, in order to “provide for fluidically controlled multi-sample testing without cross contamination between adjacent regions.”

Applicants submit that claims 65, 67, 70, 76, 78, 81, 88, 90, 93, 101, 102, 105, 126, 128, 130 and 133 are not obvious over any combination of the above-cited references. As discussed above, Applicants submit that the combination of Walt et al., McDevitt et al. and/or Seul et al.

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does not teach or suggest all of the elements of any of the currently pending independent claims. The Felder et al. reference does not even mention blank microspheres, and thus, it does not remedy this deficiency. Furthermore, for at least the reasons discussed above, a skilled artisan would not be motivated to combine the disclosure of Walt et al. with those of McDevitt et al. and/or Seul et al. with any reasonable expectation of success so as to arrive at the subject matter set forth in the currently pending independent claims. The Felder et al. reference does not provide such motivation or reasonable expectation of success. Accordingly, no combination Walt et al., Felder et al., McDevitt et al., and/or Seul et al. renders any of the above-rejected claims obvious.

In view of the foregoing remarks, Applicants respectfully request that the Examiner withdraw the rejection of claims 65, 67, 70, 76, 78, 81, 88, 90, 93, 101, 102, 105, 126, 128, 130 and 133 under 35 U.S.C. § 103(a).

Co-Pending Application of Assignee

Applicants wish to draw the Examiner's attention to co-pending, co-owned U.S. Patent Application No. 10/856,039. The Examiner may wish to consider the currently pending claims and/or prosecution history of that application.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

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CONCLUSION

Applicants believe that all outstanding issues in this case have been resolved and that the present claims are in condition for allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is invited to contact the undersigned at the telephone number provided below in order to expedite the resolution of such issues.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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